AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Currently Amended) A substrate cleaning facility having a multi-storied structure, comprising:

a cleaning part including a plurality of process chambers having at least one process bath in which substrates are cleaned, the plurality of process chambers being stacked;

an interface part where substrates are transferred between the plurality of process chambers, the interface part includes:

a transfer bath containing one of the substrates to prevent exposure of the substrate to air, and

a transfer bath moving part for allowing the transfer bath to move up and down; and

a transfer robot,

wherein the transfer bath includes a nozzle configured to supply a cleaning solution thereinto,

the substrates are transferred between the plurality of process chambers while being submerged in the cleaning solution of the transfer bath,

the transfer bath further includes an exhaust valve configured to exhaust a cleaning solution,

the exhaust valve is made of an elastic member to continue to cut off its outlet when an external force is not applied,

the exhaust value includes:

a body;

a shield plate opposite to a bottom of the body in the body to open and close the outlet of the exhaust valve; and

a spring installed in the body to press the shield plate,

the interface part further includes a switch mounted on a bottom of the interface part for opening and closing the exhaust valve, and

the switch further includes a gas injection part for injecting a dry gas to the injection valve to dry the exhaust valve, wherein the switch includes:

a rod;

a body having a space into which at least a part of the rod is inserted and including first and second openings acting as a path through which a fluid flows in or out; and

a separation plate moved between formed positions of the first and second openings by the fluid flowing in through the first or second opening, wherein:

simultaneously to movement of the separation plate, the road pushes up the separation plate to open the exhaust valve, and

the gas injection part includes:

an injection line being a hole through which the separation plate and the rod to penetrate; and

an inflow port formed at the body to apply a dry gas to the injection line while the rod moves to close the exhaust valve.

2. (Original) The substrate cleaning facility of claim 1, wherein:

each of the process baths is configured for performing at least one selected from the group consisting of a chemical treating process, a rinsing process, and a drying process.

3. (Previously Presented) The substrate cleaning facility of claim 1, wherein:

each of the process chambers comprises:

a processing part where a plurality of processing baths are disposed; and

a transfer part where a transfer robot is installed to transfer the substrates between the process baths.

4. (Previously Presented) The substrate cleaning facility of claim 3, wherein:

the transfer robot of the process chamber having the processing bath in which a drying process is performed, comprises:

a first robot for transferring wet substrates; and

a second robot for transferring dry substrates.

5. (Previously Presented) The substrate cleaning facility of claim 2, wherein:

a buffer part where a cassette is temporarily disposed at the respective process chambers.

6. (Previously Presented) The substrate cleaning facility of claim 3, wherein:

each of the process chambers comprises:

a fan filter unit for sending a clean gas into the process chamber;

a first exhaust part configured for exhausting fumes around the processing bath; and

a second exhaust part configured for forcibly exhausting particles around the transfer part.

7. (Original) The substrate cleaning facility of claim 6, wherein:

the second exhaust part comprises:

an exhaust pipe connected to a bottom of the transfer part;

a damper for opening and closing a path of the exhaust pipe; and

an exhaust fan for regulating a displacement through the exhaust pipe.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Previously Presented) The substrate cleaning facility of claim 1, wherein:

the transfer bath further comprises a cleaning solution supply pipe connected to a lateral face or a bottom of the transfer bath to supply a cleaning solution thereinto; and

the substrates are transferred between the process chambers while being submerged in the cleaning solution of the transfer bath.

12. (Currently Amended) The substrate cleaning facility of claim [[10]] 1, wherein:

the cleaning solution is deionized (DI) water.

13. (Previously Presented) The substrate cleaning facility of claim 11, wherein:

when the substrates are contained in the transfer bath, a rinsing process is performed in the transfer bath.

14. (Currently Amended) The substrate cleaning facility of claim [[10]] 1, wherein:

the transfer bath moving part comprises:

a frame extending to have a height from a lowest process chamber to a highest process chamber and having a guide rail;

a slider combined with the guide rail to move up and down therealong; and

a driving part for moving the slider,

wherein the transfer bath is mounted at the slider.

15. (Currently Amended) The substrate cleaning facility of claim [[10]] 1, wherein the transfer bath comprises:

an inner bath in which the substrates are contained;

a cleaning solution supply part for supplying a cleaning solution into the inner bath; and

an outer bath, disposed to surround an outer sidewall of the inner bath, in which a cleaning solution overflowing from the inner bath is contained.

16. (Original) The substrate cleaning facility of claim 15, wherein:

when the substrates are contained in the transfer bath, a rinsing process is performed in the transfer bath.

17. (Original) The substrate cleaning facility of claim 15, wherein:

the cleaning solution supply part includes a cleaning solution supply pipe connected to a lateral face or a bottom of the inner bath.

18. (Original) The substrate cleaning facility of claim 15, wherein:

the cleaning solution supply part includes a nozzle configured for injecting a cleaning solution to an open top of the inner bath.

19. (Original) The substrate cleaning facility of claim 18, wherein:

a guide plate is installed at the interface part to guide a cleaning solution falling on an outer sidewall of the transfer bath to the inside of the transfer bath or the outside spaced apart from the outer sidewall of the transfer bath.

20. (Original) The substrate cleaning solution of claim 19 wherein:

one end of the guide plate extends inwardly toward an inner sidewall of the inner bath, and the other end thereof extends outwardly toward the outer sidewall of the outer bath.

21. (Previously Presented) The substrate cleaning solution of claim of claim 20, wherein:

the nozzle is fixedly installed at a determined position of the interface part; and

the guide plate is lower than the nozzle and is higher than the transfer bath.

22. (Original) The substrate cleaning facility of claim 19, wherein:

the interface part further comprises a guide plate moving part for moving the guide plate to be in a guide state where the flow of a cleaning solution is guided while the cleaning solution is supplied into the transfer bath and in a non-interference state where the movement of the transfer bath is not interfered.

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Previously Presented) The substrate cleaning facility of claim 1, further comprising:

a loading/unloading part in which a cassette is contained; and

an aligning part disposed between the loading/unloading part and the cleaning part to convert each substrate to a vertical state to a horizontal state or vice versa.

28. (Previously Presented) The substrate cleaning facility of claim 1, wherein the loading/unloading part includes:

an in/out port at which the cassette loaded/unloaded to/from the facility is placed; and

a stocker dished between the in/out port and the cleaning part to temporarily contain the cassettes,

wherein the stocker includes a rack on which the cassettes are placed, and a robot for transferring the cassette.

29. (Original) The substrate cleaning facility of claim 27, wherein:

the aligning part comprises at least one aligner for converting substrates to a vertical state from a horizontal state.

30. (Original) The substrate cleaning facility of claim 29, wherein:

the aligner comprises: at least one horizontal return robot for putting/drawing substrates in/out of a cassette; and

a rotatable repositioning device containing substrates returned by the horizontal return robot.

31. (Original) The substrate cleaning facility of claim 30, wherein:

the aligner further comprises a pusher for separating substrates from the repositioning device to transfer the substrates to the cleaning part.

32. (Previously Presented) The substrate cleaning facility of claim 27, wherein:

the substrates are cleaned while being transferred via the aligning part,

wherein a first process chamber is one of the process chambers, the interface part, a second process chamber being the other of the process chamber, and the aligning part.

33. (Original) The substrate cleaning facility of claim 32, wherein:

the cleaning baths are arranged in a row according to the order of processes performed in the firsts and second and process chambers.

34.-40. (Cancelled)